

## ABSTRACT OF THE DISCLOSURE

A data output apparatus for writing and reading data on storage memories, especially such storage devices using storage media like an optical disk.

5           The apparatus efficiently reads data when writing and reading data in storage memories using storage media with a low writing and reading rate such as an optical disk.

10           The apparatus comprises: a first buffer 3 that retains the inputted data stream; writing means 4 for writing on the aforesaid recording medium the data stream held in the first buffer 3; second buffer 6 for holding the data stream to output to external device; reading means 7 for reading on to the second buffer 6 the data stream recorded on the recording medium; and predicting means 20 for predicting the duration  $W$  to consume the data stream held on the second buffer 6 on the basis of the duration needed for  
15 presentation of video information contained in the data stream held on the second buffer 6. That ensures that writing and reading are real-time.